

# Melting Foam Snow

## You Will Need:

- 2 large plastic containers or trays
- baking soda
- dishwashing detergent
- vinegar
- measuring spoons
- measuring cup
- marker
- paper
- sticky tape



## Instructions:

1. Write the word 'soap' on a piece of paper and stick it to one of the large plastic containers.
2. Put one cup of baking soda into the marked plastic container and another cup into the other container.
3. Add three tablespoons of water to the container without a label and mix it with the baking soda until a dough is made. Add small amounts of water if the dough is too crumbly.
4. Use the dough to create a winter themed shape inside the container, like a snowman.
5. Add one teaspoon of dishwashing detergent and three tablespoons of water to the 'soap' container.
6. Mix the detergent, water and baking soda together to make a dough. If it is too dry add small amounts of water until it comes together.
7. Make another shape that is a similar height and size to the other one.
8. Fill the measuring cup with vinegar and pour it over the mould in the first container. Make observations.
9. Fill the measuring cup with vinegar again and pour it over the mould in the 'soap' container. Make observations.
10. Rinse out the measuring cup and fill it with water. Pour the water over what is left of your moulds. Make observations.

## Questions:

What did you see and hear?

What happened when the vinegar was poured over the moulds?

What happened when the water was poured over the moulds?

What could you change next time to get a different result?

What do you think would happen if you used another liquid such as milk, cordial or lemon juice?

What did the soap do?

## What's Going On:

When vinegar and baking soda come in contact with each other, chemical reactions take place that create a gas (carbon dioxide) that bubbles up in the water mixture creating a fizz sound. In the unmarked container the bubbles burst open as they reach the surface creating the fizz and sizzling sound. In the 'soap' plastic container, there is a layer of white foam caused by the washing detergent. The detergent spreads out and traps the bubbles creating a foam. Water does not react with baking soda, so no reaction happened when you poured the water over your snow creations.